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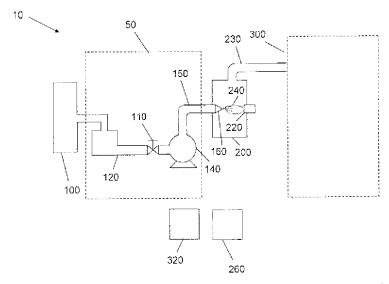
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For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: METHOD AND SYSTEM FOR TREATING CHEMICAL WASTE



(57) Abstract: The invention is a system and method for neutralizing fluid chemical waste products that result from a chemical production process and are collected from the production line. The invention comprises a pyrolysis/reaction chamber (200) into which the fluid chemical waste is pumped (140) through an atomizer (160). The jet of small droplets of liquid waste that is formed by the atomizer (160) effectively contacts the plasma stream created by a plasma torch (220). When the droplets contact the plasma stream the molecules of the waste from which the droplets are composed are dissociated into atoms and/or ions. These atoms and ions move out of the immediate region of the plasma stream and recombine to form a mixture of product gases which exits the chamber. The product gases then enter a post-pyrolysis subsystem (300), which is designed to neutralize and/or collect the components comprising the mixture of product gases.

International Application No PCT/IL2005/000385

PCT/IL2005/000385 A. CLASSIFICATION OF SUBJECT MATTER IPC 7 B01J19/08 According to International Patent Classification (IPC) or to both national classification and IPC B. FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) A62D B01J IPC 7 Documentation searched other than minimum documentation to the extent that such documents are included. In the fields searched Electronic data base consulted during the international search (name of data base and, where practical, search terms used) EPO-Internal C. DOCUMENTS CONSIDERED TO BE RELEVANT Category ° Citation of document, with indication, where appropriate, of the relevant passages Relevant to claim No. X US 4 644 877 A (BARTON ET AL) 1,3,5-8,24 February 1987 (1987-02-24) 15,16, 19,21-26 cited in the application abstract; figures column 6, line 45 - line 49 column 7, line 11 - line 19 column 7, line 47 - line 57 χ WO 03/066197 A (TBI CO., LTD; KIM, SIN, 1,21 DO; KIM, JONG, HO; YOO, AE, KWON) 14 August 2003 (2003-08-14) abstract; figures page 11, line 7 - page 12 Α US 5 484 978 A (HEDBERG ET AL) 1 - 2616 January 1996 (1996-01-16) abstract; figures column 3, line 10 - line 15 -/--X Further documents are listed in the continuation of box C. Patent family members are listed in annex. Special categories of cited documents: "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the "A" document defining the general state of the lart which is not considered to be of particular relevance invention "E" earlier document but published on or after the international "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive, step when the document is combined with one or more other, such docu— "O" document referring to an oral disclosure, use, exhibition or ments, such combination being obvious to a person skilled other means in the art. "P" document published prior to the International filing date but later than the priority date claimed "&" document member of the same patent family Date of the actual completion of the international search Date of mailing of the international search report 27/07/2005 21 July 2005 Name and mailing address of the ISA Authorized officer European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk

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